

REMARKS

Claims 11 to 13, 16 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by Markham et al., U.S. Patent No. 6,215,119. Claims 14 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Markham et al. in view of Eckelmeyer, U.S. Patent No. 4,271,379. Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over Markham et al. in view of Jackson et al., U.S. Patent No. 7,302,237 and in further view of Eckelmeyer. Claims 19 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Markham et al. in view of Marmin, U.S. Patent 5,242,367.

Claim 11 has been amended. Reconsideration of the application based on the foregoing amendments and following remarks is respectfully requested.

Rejections under 35 U.S.C. §102(b)

Claims 11 to 13, 16 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by Markham et al., U.S. Patent No. 6,215,119.

Markham et al. discloses an encoder system having a conventional encoder wheel 100 and first and second conventional encoder sensors 200A, 200B. (Fig. 7). A circuit 800 receives the outputs of the two encoders 200A and 200B and generates an output having a lower error level by digitally synthesizing a signal that is phase locked to a point half-way in time between the two input signals from the first and second encoder sensors 200A and 200B. (Fig. 8, col. 5, lines 8-11). Markham et al. alleges that such an operation increases the accuracy of the encoder signal over a system which has a single encoder sensor. (Compare Fig. 9 with Fig. 10).

Claim 11 recites “[a] rotary element of a printing press comprising:
an encoder for generating a periodic first signal in response to rotation of the rotary element; and

an evaluation unit linked to the encoder having:

at least one synthesizer for generating a second signal having a resolution ratio, a frequency ratio, and a phase relation to the first signal, and

a control interface for data exchange coupled to the at least one synthesizer for setting at least one of the resolution ratio, the frequency ratio and the phase relation of the first signal to the second signal based on data input by a user and transmitted to the synthesizer." (emphasis added).

Markham et al. does not show or teach the limitation of "a control interface for data exchange, the control interface setting at least one of the resolution ratio, the frequency ratio and the phase relation of the first signal to the second signal based on data input by a user and transmitted to the synthesizer" recited in claim 11. Instead Markham et al. discloses a circuit 800 that receives two input sensor signals and digitally "synthesizes [an output] signal that is phase locked half way in time between the two sensor signals 200A and 200B." (Col. 5, lines 8 to 11). The two sensors are identical and have an inherent inaccuracy based on eccentricity of mounting of the sensors and the encoder wheel (i.e., such sensors produce an uncompensated error as shown in Fig. 9). Markham et al. alleges that the output signal will have a better accuracy (as shown in Fig. 10) as opposed to the two sensor signals. However, Markham et al. does not disclose any "setting" of the output signal "based on data input by a user and transmitted to the synthesizer" as specifically required by claim 11. The second sensor input signal does not correspond to "data transmitted to the synthesizer" which, in the present invention, is provided to evaluation unit 24 via a control interface 68 with an input device 28 and stored in memory 70 and is based upon a user input.

The Final Office Action cites to the claim language relating to the control interface, but uses ellipses instead of including the particular claim language specifying that the setting must be "based on data input by a user and transmitted to the synthesizer." (Final Office Action, p. 2, par. 1). The Final Office Action then alleges that "the circuit 800, being the evaluation unit, has selected the phase relation property of the first signal (associated with 200A) and has produced a synthesized second signal that is an adjustment of the first signal 200A in the phase relation property." (Id.). However, this allegation fails to address the specific claim requirement that the setting be "based on data input by a user and transmitted to the synthesizer." As discussed above, the second sensor input signal does not correspond to this requirement, and thus, since

Markham et al. does not disclose or teach this claim limitation, Markham et al. does not render claim 11, or any claim dependent thereon, unpatentable as anticipated.

Withdrawal of the rejections to claims 11 to 13, 16 and 17 under 35 U.S.C. §102(b) is respectfully requested.

Rejections under 35 U.S.C. §103(a)

Claims 14 and 15

Claims 14 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Markham et al. in view of Eckelmeyer, U.S. Patent No. 4,271,379.

Markham et al. is discussed above. Eckelmeyer discloses encoders 52, 54 associated with respective first and second motors 25, 50 to produce pulse trains which are compared for motor speed relationship. (Fig. 1, col. 3, lines 35 *et seq.*). If the relationship is not correct, the energization of the second motor is varied to correct the error. (*Id.*).

Claims 14 and 15 depend from claim 11. In view of the arguments above with respect to claim 11, withdrawal of the rejection to claims 14 and 15 under 35 U.S.C. §103(a) is respectfully requested.

Claim 18

Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over Markham et al. in view of Jackson et al., U.S. Patent No. 7,302,237 and in further view of Eckelmeyer.

Markham et al. is discussed above. Jackson et al. discloses a wideband frequency synthesizer 100 that includes two signal generators 20a, b. (Fig. 1). Eckelmeyer is discussed above.

Claim 18 depends from claim 11. In view of the arguments above with respect to claim 11, withdrawal of the rejection to claim 18 under 35 U.S.C. §103(a) is respectfully requested.

Claims 19 and 20

Claims 19 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Markham et al. in view of Marmin, U.S. Patent 5,242,367.

Markham et al. is discussed above. Marmin discloses a folder for a rotary offset printing press comprising a transfer cylinder 6, a first-fold cylinder 12 and a second fold cylinder 16. (Fig. 7).

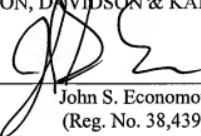
Claims 19 and 20 depend from claim 11. In view of the arguments above with respect to claim 11, withdrawal of the rejection to claims 19 and 20 under 35 U.S.C. §103(a) is respectfully requested.

CONCLUSION

The present application is respectfully submitted as being in condition for allowance and applicants respectfully request such action.

Respectfully submitted,
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